Ontario Influenza Bulletin
2008-2009 Season

Ontario

Ministry of Health & Long-Term Care
Public Health Division

SURVEILLANCE WEEK 23 (June 7, 2009– June 13, 2009)

This issue of the Ontario Influenza Bulletin provides information on the surveillance period from June 7, 2009-June 13, 2009, (Week 23). The analysis for this issue occurred on June 18, 2009, therefore all data is current to that date unless otherwise specified.

Overall, influenza activity in Ontario during week 23, 2009 was similar as compared to week 22, 2009. There were 425 confirmed cases of influenza reported through iPHIS from health units; this count includes confirmed cases of the novel H1N1 influenza A virus. There were no new reports of institutional influenza outbreaks. For week 23, Central West, Central East, Eastern & Toronto health regions reported 'localized' level activity while the remaining health regions reported 'sporadic' level activity.

Novel H1N1 Influenza A Virus Update

As of June 18, 2009, there have been 2389 confirmed cases of novel H1N1 Influenza A virus in Ontario and 4905 confirmed cases in Canada.

For a definition of influenza-like illness (ILI) activity levels and links to websites providing current influenza information from other sources, please refer to the attached Appendix- I. If you would like to provide feedback on the Bulletin, please contact Christine D'Souza (christine.dsouza1@ontario.ca, 416-212-5323) or Anne-Luise Winter (anne-luise.winter@ontario.ca, 416-327-7301).

Table 1: Summary of confirmed influenza cases and institutional influenza outbreaks by health region (Week 23, 2009).

Confirmed influenza cases*	HEALTH REGION							TOTAL
	North West	North East	Eastern	Central East	Toronto	South West	Central West	
Influenza A	13	1	85	206	89	5	26	425
Influenza B	0	0	0	0	0	0	0	0
Influenza A & B	0	0	0	0	0	0	0	0
Total new cases	13	1	85	206	89	5	26	425
Institutional influenza outbreaks‡	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

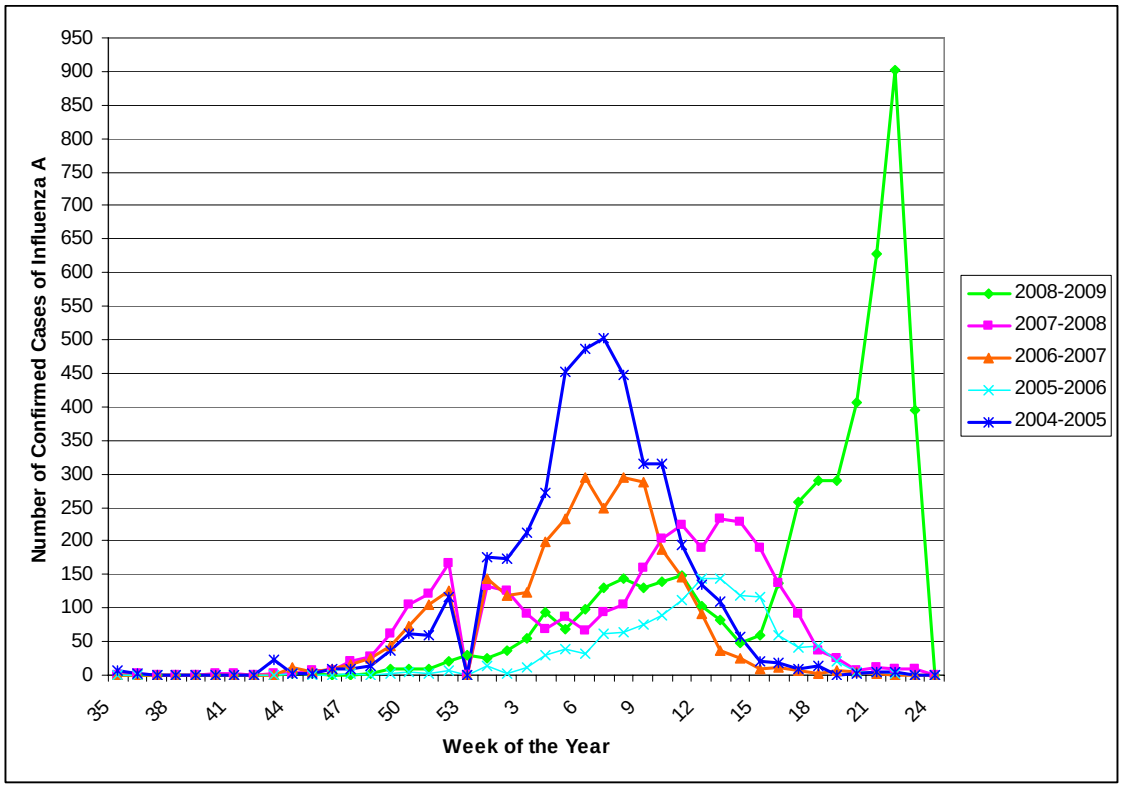
SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [18/06/2009].

* Includes reports of confirmed influenza through iPHIS, as well as cases in institutional outbreaks, with dates of onset in the surveillance period.

† These data have been obtained from the FluWatch report of the Public Health Agency of Canada for Week 22, 2009.

‡ Confirmed outbreaks in institutions with onset date of symptoms during the surveillance period.

Figure 1: Confirmed Cases of Influenza A in Ontario by week between September 1 and June 13, 2004-2009† *



SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [17/06/2009].

† Episode Date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date)

* For Week 23, decreased influenza case counts may be attributed in part to reporting delays

Table 2: Confirmed cases of influenza by health unit & health region, with an episode date† during Week 23, 2008-09

Region	Health Unit	Confirmed Influenza			
		Influenza A	Influenza A & B	Influenza B	TOTAL
North West	Northwestern	13	0	0	**13**
	Thunder Bay District	0	0	0	**0**
	TOTAL NORTH WEST	**13**	**0**	**0**	**13**
North East	Algoma	0	0	0	**0**
	North Bay Parry Sound District	0	0	0	**0**
	Porcupine	0	0	0	**0**
	Sudbury & District	1	0	0	**1**
	Timiskaming	0	0	0	**0**
	TOTAL NORTH EAST	**1**	**0**	**0**	**1**
Eastern	City of Ottawa	78	0	0	**78**
	Eastern Ontario	4	0	0	**4**
	Hastings & Prince Edward Counties	0	0	0	**0**
	Kingston, Frontenac, Lennox & Addington	1	0	0	**1**
	Leeds, Grenville And Lanark District	2	0	0	**2**
	Renfrew County And District	0	0	0	**0**
	TOTAL EASTERN	**85**	**0**	**0**	**85**
Central East	Durham Region	6	0	0	**6**
	Haliburton, Kawartha, Pine Ridge	0	0	0	**0**
	Peel Region	141	0	0	**141**
	Peterborough County-City	0	0	0	**0**
	Simcoe Muskoka District	5	0	0	**5**
	York Region	54	0	0	**54**
	TOTAL CENTRAL EAST	**206**	**0**	**0**	**206**
Toronto	Toronto	89	0	0	**89**
	TOTAL TORONTO	**89**	**0**	**0**	**89**
South West	Chatham-Kent	1	0	0	**1**
	Elgin-St. Thomas	0	0	0	**0**
	Grey Bruce	0	0	0	**0**
	Huron County	0	0	0	**0**
	Lambton County	0	0	0	**0**
	Middlesex-London	3	0	0	**3**
	Oxford County	0	0	0	**0**
	Perth District	0	0	0	**0**
	Windsor-Essex County	1	0	0	**1**
	TOTAL SOUTHWEST	**5**	**0**	**0**	**5**
Central West	Brant County	0	0	0	**0**
	City Of Hamilton	6	0	0	**6**
	Haldimand-Norfolk	0	0	0	**0**
	Halton Region	11	0	0	**11**
	Niagara Region	1	0	0	**1**
	Waterloo Region	7	0	0	**7**
	Wellington-Dufferin-Guelph	1	0	0	**1**
	TOTAL CENTRAL WEST	**26**	**0**	**0**	**26**
	TOTAL ONTARIO	**425**	**0**	**0**	**425**

SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [18/06/2009].

† Episode Date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date)

Table 3: Cumulative* confirmed cases of influenza by health unit & health region with an episode date† between September 1, 2008 – June 13, 2009

Region	Health Unit	Confirmed Influenza			
		Influenza A	Influenza A & B	Influenza B	TOTAL
North West	Northwestern	29	0	7	**36**
	Thunder Bay District	5	0	7	**12**
	TOTAL NORTH WEST	**34**	**0**	**14**	**48**
North East	Algoma	5	0	10	**15**
	North Bay Parry Sound District	16	0	74	**90**
	Porcupine	18	0	30	**48**
	Sudbury & District	21	0	7	**28**
	Timiskaming	4	0	5	**9**
	TOTAL NORTH EAST	**64**	**0**	**126**	**190**
Eastern	City Of Ottawa	350	2	56	**408**
	Eastern Ontario	18	0	39	**57**
	Hastings & Prince Edward Counties	11	0	19	**30**
	Kingston, Frontenac, Lennox & Addington	34	0	32	**66**
	Leeds, Grenville And Lanark District	24	0	22	**46**
	Renfrew County And District	10	0	10	**20**
	TOTAL EASTERN	**447**	**2**	**178**	**627**
Central East	Durham Region	156	1	61	**218**
	Haliburton, Kawartha, Pine Ridge	81	0	49	**130**
	Peel Region	864	0	143	**1,007**
	Peterborough County-City	29	0	10	**39**
	Simcoe Muskoka District	93	0	77	**170**
	York Region	519	0	43	**562**
	TOTAL CENTRAL EAST	**1,742**	**1**	**383**	**2,126**
Toronto	Toronto	1,636	3	242	**1,881**
	TOTAL TORONTO	**1,636**	**3**	**242**	**1,881**
South West	Chatham-Kent	8	0	4	**12**
	Elgin-St. Thomas	2	0	1	**3**
	Grey Bruce	25	1	54	**80**
	Huron County	15	0	33	**48**
	Lambton County	5	0	6	**11**
	Middlesex-London	48	0	9	**57**
	Oxford County	17	0	10	**27**
	Perth District	25	0	12	**37**
	Windsor-Essex County	33	0	33	**66**
	TOTAL SOUTHWEST	**178**	**1**	**162**	**341**
Central West	Brant County	20	0	19	**39**
	City Of Hamilton	150	0	97	**247**
	Haldimand-Norfolk	9	0	11	**20**
	Halton Region	275	0	59	**334**
	Niagara Region	74	0	56	**130**
	Waterloo Region	130	0	85	**215**
	Wellington-Dufferin-Guelph	72	0	41	**113**
	TOTAL CENTRAL WEST	**730**	**0**	**368**	**1,098**
	TOTAL ONTARIO	**4,831**	**7**	**1,473**	**6,311**

SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [18/06/2009].
* Cumulative case counts include late reports and records that are otherwise reconciled. Therefore, cumulative counts may not equal new cases plus previous cumulative value.
† Episode Date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date)

Influenza Subtype(s):
During week 23, a total of 7537 isolates were received by the Public Health Agency of Canada, with 1957 testing positive for influenza A and none positive for influenza B. 928 of the reported influenza A isolates were from Ontario (47.4%), 348 were from Alberta (17.8%), 344 were from Quebec (17.8%) and 171 were from Manitoba (8.7%).*

Antigenic Characterization (National) – Seasonal Influenza:
Since September 1, 2008, National Microbiology Laboratory (NML) has antigenically characterized 973 seasonal human influenza viruses (166 influenza A/H3N2, 241 influenza A/H1N1 and 566 B viruses) that were received from Canadian provincial and hospital laboratories and 92 novel influenza A(H1N1) viruses. All 166 influenza A/H3N2 isolates characterized were antigenically similar to A/Brisbane/10/07, which is the influenza A (H3N2) component recommended for the 2008-09 influenza vaccine. All 241 influenza A/H1N1 isolates characterized were antigenically similar to A/Brisbane/59/2007, which is the influenza A (H1N1) component recommended for the 2008-09 influenza vaccine.

Influenza B viruses currently circulating can be divided into two antigenically distinct lineages represented by B/Yamagata/16/88 and B/Victoria/2/87 viruses. Of the 566 influenza B isolates characterized, 11 were antigenically similar to B/Florida/4/2006, which is the B component recommended for the 2008-09 influenza vaccine and belongs to B/Yamagata lineage. 379 B isolates were characterized as B/Malaysia/2506/04-like and 176 were characterized as B/Brisbane/60/08-like, which belong to the Victoria lineage. B/Brisbane/60/08 is the recommended B component for the 2009-2010 influenza
vaccine.

Antigenic Characterization - Novel Influenza A (H1N1) swl (Human Swine Influenza):
NML has antigenically characterized 92 novel influenza A (H1N1) isolates by HI assay. The results reveal that these viruses are antigenically related to A/California/7/2009 (H1N1), which is the variant reference virus selected by WHO as a potential candidate for novel influenza A(H1N1) vaccine. Antigenic characterization also indicates that these viruses are antigenically and genetically unrelated to seasonal influenza A (H1N1) viruses, which suggests that there is little or no protection to be expected from vaccination with seasonal influenza vaccine.

The National Microbiology Laboratory (NML) has antigenically characterized the following strains from Ontario: 6 influenza A/California/07/2009-like

Antigenic Characterization (Provincial) – Seasonal Influenza:
The National Microbiology Laboratory (NML) has antigenically characterized the following strains from Ontario: 79 influenza A/Brisbane/59/2007(H1N1)-like, 21 influenza A (H3N2)A/Brisbane/10/2007-like, 40 B/Brisbane/60/2008-like, 6 influenza B/Florida/4/2006-like, and 177 B/Malaysia/2506/2004-like.†

Antiviral Resistance (National) – Seasonal Influenza:
Since the start of the season, the NML has tested 562 influenza A isolates (257 H1N1 and 305 H3N2) for amantadine resistance. All of the H1N1 isolates were sensitive; however all of the H3N2 isolates were resistant to amantadine. The NML has also tested 1042 influenza isolates (291 A/H1N1, 183 A/H3N2 & 569 B) for oseltamivir (Tamiflu) resistance. All of the A/H3N2 and B isolates were sensitive; however 290 of the A/H1N1 isolates were resistant to oseltamivir due to the H274Y mutation (resistance = 100% or 290/290). One H1N1 isolate was sensitive to oseltamivir.

All 994 influenza isolates (240 A/H1N1, 180 A/H3N2 & 574 B) tested for zanamivir resistance to date were sensitive to zanamivir.†

The WHO recommends that the vaccines to be used in the 2009-2010 season (northern hemisphere) contain the following: an A/Brisbane/59/2007 (H1N1)-like virus; an A/Brisbane/10/2007 (H3N2)-like virus; and a B/Brisbane/60/2008-like virus. <http://www.who.int/csr/disease/influenza/recommendations2009_10north/en/index.html>

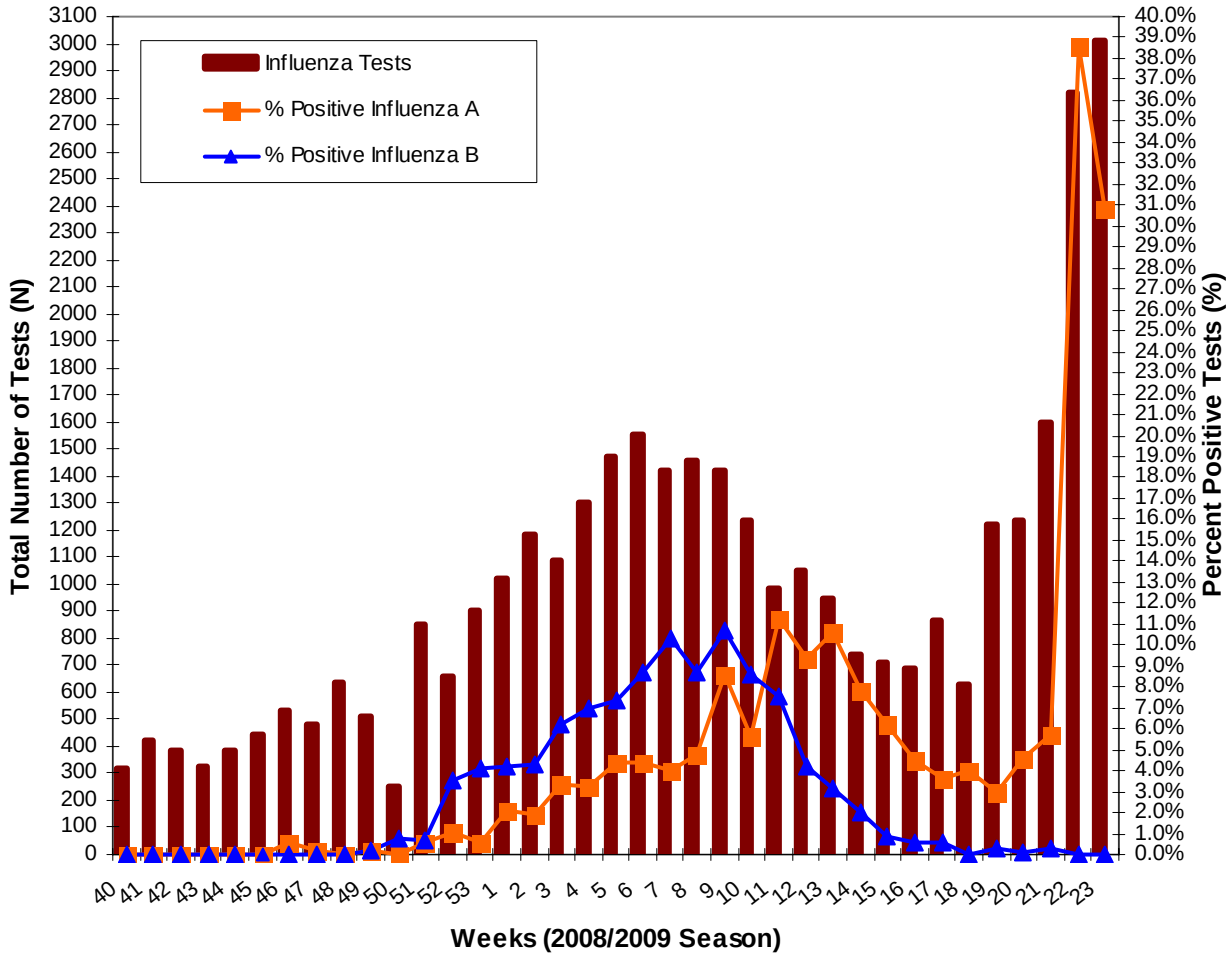
Antiviral Resistance - Novel Influenza A (H1N1) swl (Human Swine Influenza):
201 novel influenza A (H1N1) swl have been tested for resistance to amantadine by sequencing. The testing results showed that all 201 isolates were to resistant amantadine. 100 novel influenza A (H1N1) swl have been tested for resistance to oseltamivir by sequencing; all were sensitive. 52 of the novel H1N1 were tested for zanamivir resistance. The testing results showed that all 52 isolates were sensitive to zanamivir.

Antiviral Resistance (Provincial) – Seasonal Influenza:
All 57 A/H3N2 isolates tested were resistant to amantadine in Ontario. All of the 93 H1N1 isolates tested were sensitive to amantadine. Ninety-four of the 95 tested A/H1N1 isolates were resistant to oseltamivir due to the H274Y mutation, one H1N1 isolate was sensitive.†

***** These data have been obtained from the Respiratory Virus Detection tables of Public Health Agency of Canada and do not include data from late reports to PHAC: Week 23, 2009

† These data have been obtained from the National Microbiology Laboratory of the Public Health Agency of Canada for Week 23, 2009.

Figure 4: Total number of influenza tests performed and percent of positive tests in Ontario reported to the Centre for Immunization and Respiratory Infectious Diseases (CIRID), by report week*.



Source: Public Health Agency of Canada

* Total numbers reported include late reports; therefore totals may not be equal to the sum of the weekly numbers.

Note: Cumulative numbers for season to date are available through FluWatch: http://www.phac-aspc.gc.ca/fluwatch/

Table 4a: Institutional respiratory infection outbreaks in Ontario: New Outbreaks* in Week 23 and Total Outbreaks for the Season**

Institutional Respiratory Infection Outbreaks		
New Outbreaks*	**N**	**% (of outbreaks)**
Influenza A	0	0.0
Influenza B	0	0.0
Influenza A and B	0	0.0
Parainfluenza (All types)	1	50.0
RSV	0	0.0
Other organisms	0	0.0
No organism identified	1	50.0
TOTAL	***2***	***100.0***
Total Respiratory Infection Outbreaks of the Season to date**	**N**	**% (of outbreaks)**
Influenza A	71	11.4
Influenza B	18	2.9
Influenza A and B	1	0.2
Parainfluenza (All types)	38	6.1
RSV	52	8.4
Combined Outbreaks†	0	0.0
Other organisms	42	6.7
No organism identified	401	64.4
TOTAL	***623***	***100.0***
Types of Institutions (All Outbreaks) **	**N**	**% (of outbreaks)**
Long-Term Care Homes	404	64.9
Hospitals	24	3.9
Retirement Homes	52	8.4
Other	2	0.3
Unknown	141	22.6
TOTAL	***623***	***100.0***

SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [18/06/2009]

* New outbreaks are those in which the date of onset of illness in the first case occurred and recorded through iPHIS in the current surveillance period; i.e. June 7, 2009 – June 13, 2009

** Season to date includes all outbreaks in which the date of onset of illness in the first case occurred from September 1, 2008 – June 13, 2009

† Combined outbreaks include outbreaks in which more than one non-influenza organism has been identified (e.g. RSV, parainfluenza, rhinovirus, etc.)

Table 4b: Outbreak Related Complications in institutional respiratory infection outbreaks in Ontario during the Surveillance Season*

Outbreak Related Complications (All Outbreaks)	**N**	**% (of total cases)**
Total Cases		
Residents	7701	73.9
Patients	364	3.5
Staff	2280	21.9
Total Cases	**10419**	**100.0**
Deaths		**% (of cases per role)**
Residents	166	2.2
Patients	9	2.5
Staff	0	0.0
Pneumonia (Chest x-ray confirmed)		**% (of cases per role)**
Residents	277	3.6
Patients	28	7.7
Staff	9	0.4
Hospitalizations		**% (of cases per role)**
Residents	325	4.2
Staff	4	0.2
Outbreak Related Complications (Influenza Outbreaks)	**N**	**% (of total cases)**
Total Cases		
Residents	1088	70.6
Patients	47	3.1
Staff	378	24.5
Total Cases	**1541**	**100.0**
Deaths		**% (of cases per role)**
Residents	37	3.4
Patients	0	0.0
Staff	0	0.0
Pneumonia (Chest x-ray confirmed)		**% (of cases per role)**
Residents	68	6.3
Patients	3	6.4
Staff	5	1.3
Hospitalizations		**% (of cases per role)**
Residents	81	7.4
Staff	0	0.0

SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [18/06/2009]

* Season to date includes all outbreaks in which the date of onset of illness in the first case occurred from September 1, 2008 – June 13, 2009

Figure 5: Institutional respiratory infection outbreaks in Ontario by onset of illness in the first case: Total Outbreaks from September 1, 2008 – June 13, 2009 by causative organism

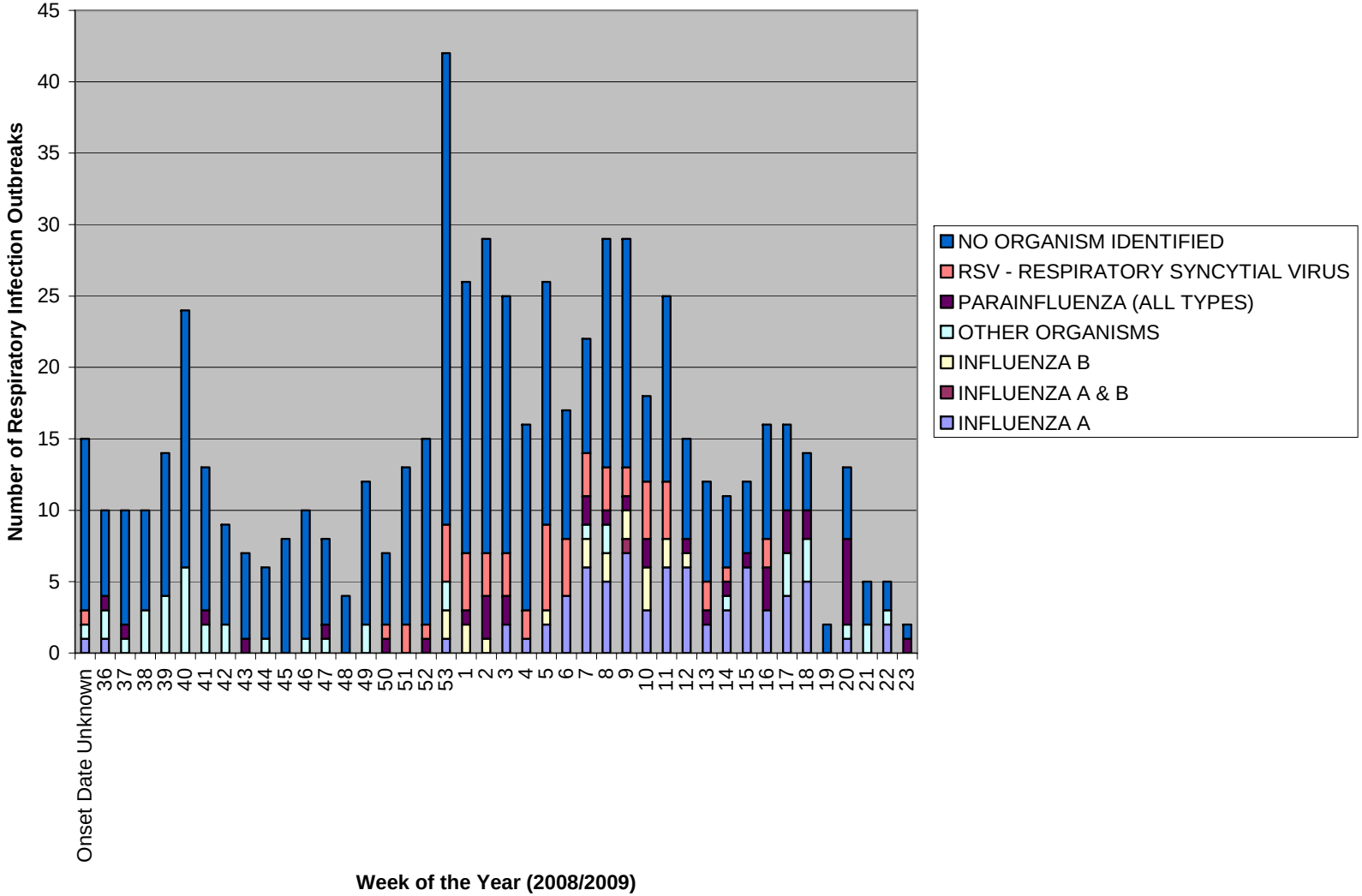


Figure 6: Influenza Activity* levels in Ontario by health unit for Week 23, 2009

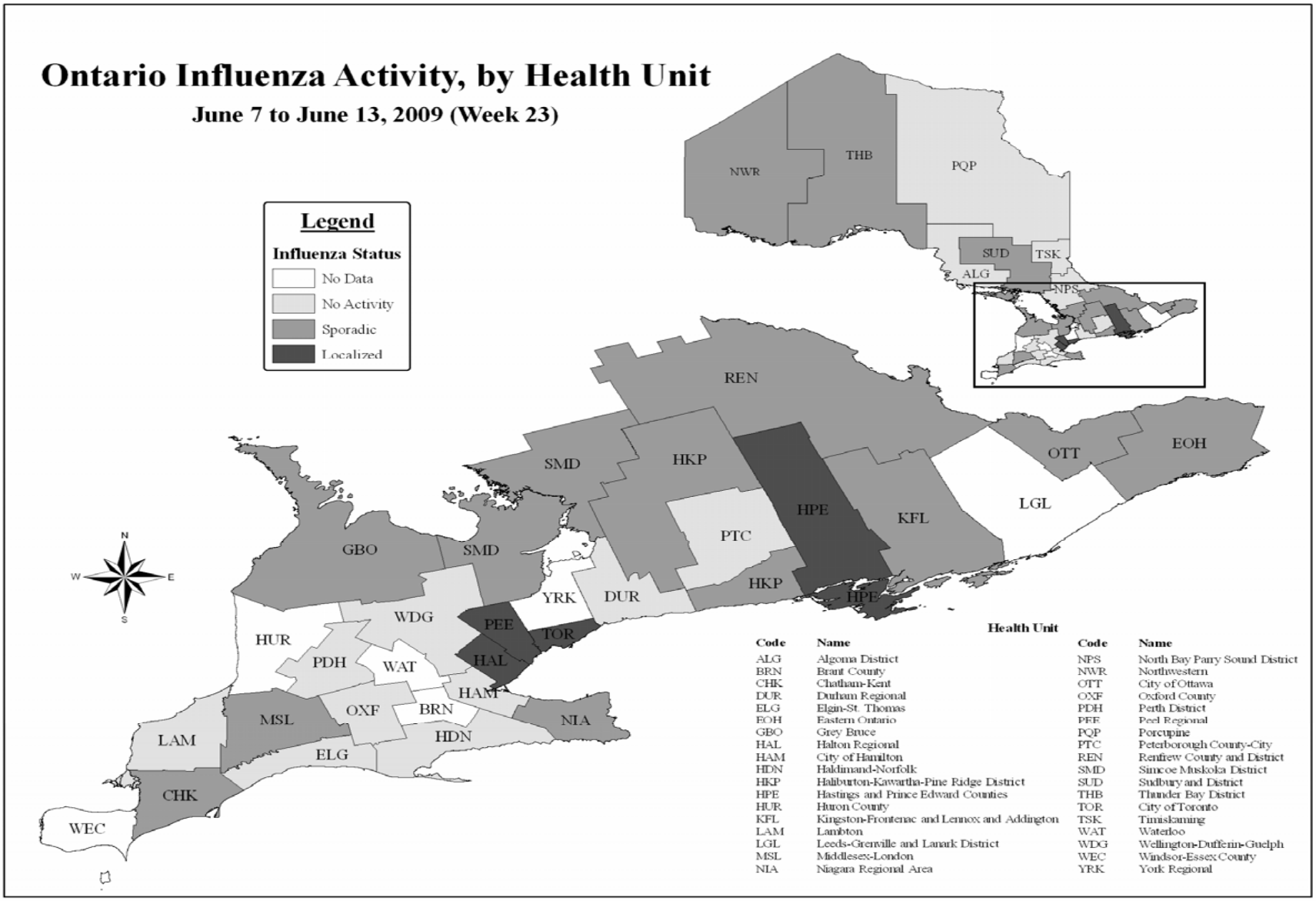
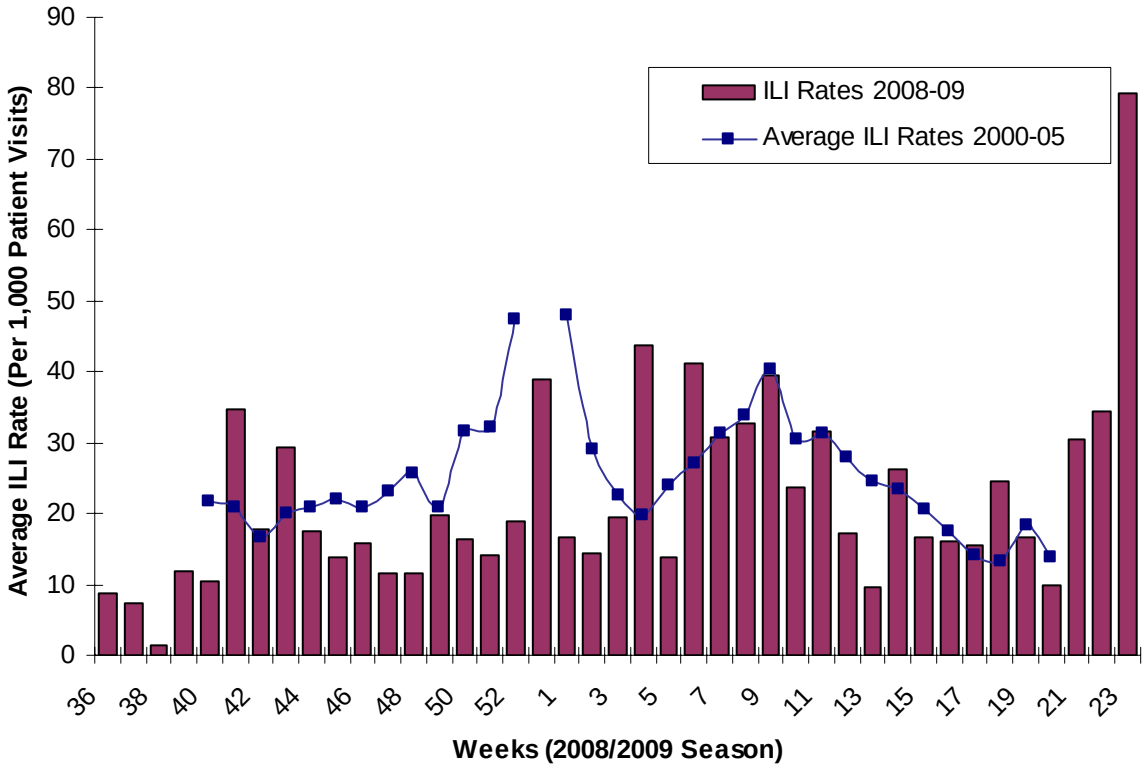


Figure 7: Average influenza-like illness (ILI) consultation rate (per 1,000 patient visits) reported by sentinel physicians* in Ontario in 2008- 2009 season, by report week, compared to Ontario average† (1999/2000 to 2004/05 seasons).



Source: Public Health Agency of Canada
* Sentinel physician information is reported to Public Health Agency of Canada.
†No data available for mean rate in previous years for weeks 21 to 39 (1999-2000 through 2004-2005 seasons). During weeks 20-39, 2002-2003/2004-2005 seasons, ILI is reported once every two weeks, on even weeks only.
Note: For Week 41, the number of sentinel physicians reporting is lower than previous years, which may affect the average ILI rate for this period.

Table 5: Average Influenza-like illness consultation rate (per 1,000 patient visits) by age group and postal code as reported by Sentinel Physicians* in Ontario, for Week 23.

Postal Code	0 – 4	5 – 19	20 – 64	65 +	Unknown
K0C2K0	0	0	0	0	0
K0C1A0	0	0	0	0	0
K1L8H2	0	0	0	0	0
K1C1G1	0	4	1	0	0
K2P1V3	0	0	1	0	0
K1J9M2	0	2	1	0	0
K2P1V3	0	0	0	0	2
K1V2G2	7	3	5	0	0
K4M2A2	2	2	4	9	0
K0A2W0	0	1	0	0	0
K2G6E2	1	0	2	0	0
K0E1L0	0	0	0	0	0
K7H2W6	0	0	0	0	0
K7H2J9	0	0	0	0	0
K0H2P0	0	0	0	0	0
K7L5E9	0	0	1	0	0
K7L6E4	0	0	0	0	0
K0K2T0	0	0	0	0	0
L1A3W4	0	0	0	0	0
K0M1A0	0	0	0	0	0
L1S2H6	0	0	1	0	0
L1S7K8	3	0	2	0	0
L1H1G6	1	2	0	0	0
L1B1H8	0	0	0	0	0
L4L4Y7	0	0	0	0	0
L4J7Y3	0	0	1	0	0
L3P7P2	0	1	1	0	0
L3R3P9	0	3	2	0	0
L4C5E7	0	10	6	0	0
M4X1W4	0	0	0	1	0
M6G4A1	0	1	0	0	0
M4E1V8	0	0	0	0	0
M1S4V5	1	0	2	1	0
M1R1V2	0	5	1	0	0
M1H2V6	0	0	0	0	0
M1V4A1	3	1	6	0	0
M1M1R4	0	0	3	0	0
M1V1V2	1	3	2	1	0
M1V1V2	1	3	2	1	0
M4K1N2	0	1	1	0	0
M3M1A4	0	0	0	0	0
M6H3M2	0	0	0	1	0
M9W6N5	0	1	1	0	0
M8V2Z5	0	0	0	0	0
L4Y2N8	0	0	1	0	0
L6W2A4	0	0	1	0	0
L6V4H6	0	0	1	0	0
L6W1E2	1	2	2	0	0
L7C1H9	4	2	3	0	0
L6Z0A4	0	0	0	1	0
L9W1G2	0	0	0	0	0
N1H4G2	0	0	0	0	0
N1H5J1	0	0	1	0	0
N1H4J4	0	0	0	0	0
L7G0E3	0	0	0	0	0
L7R1M6	0	0	0	0	0
L9T3Z9	0	0	0	1	0
L8P3A9	0	0	1	0	0
L8P3A4	0	0	0	0	0
L9H1V1	0	0	0	0	0
L0R1H0	0	0	0	0	0
L8W3J6	0	0	0	1	0
L9H7M3	0	0	0	0	0
L0R1B0	0	0	0	0	0
L2V1P1	0	0	2	0	0
L2E7H1	0	0	0	0	0
L2M3W2	0	0	0	0	0
N0A1H0	0	0	0	0	0
N3R7K8	0	0	0	0	0
N3R1G9	0	0	0	0	0
N1R2L7	0	0	0	0	0
N2G1P2	0	0	0	0	0
N2M3B5	0	0	1	0	0

N5H1K9	0	0	0	0	0
N0P2K0	0	0	0	0	0
N0P2C0	0	0	0	0	0
N0R1G0	0	0	0	0	0
N8X1T2	0	0	0	0	0
N9B3P4	0	0	0	0	0
N8M4M7	0	0	0	0	0
N0M1T0	0	0	0	0	0
N6A5R9	0	0	0	0	0
N6C2R5	0	0	0	0	0
N5Y4J8	0	1	0	0	0
N6E3Z8	0	0	2	0	0
N0C1E0	0	0	0	0	0
N0C1E0	0	0	0	0	0
L3V5W5	0	0	0	0	0
K0M1S0	0	0	0	0	0
P0A1C0	0	0	0	0	0
P0P1K0	0	0	0	0	0
P0M2L0	0	0	0	0	0
P6B1Y5	0	0	0	0	0
P7E1H5	0	0	0	0	0
P7B6Y9	0	0	0	0	0
P0W1E0	0	0	0	0	0
P9N3W7	0	1	0	0	0
P8N2Z6	0	0	0	0	0
ILI Sum	25	47	56	17	2
ILI Consultation Rate (per 1,000 patient visits)	173.61	252.69	55.61	41.77	18.18

Source: Public Health Agency of Canada
* Sentinel physician information is reported to the Public Health Agency of Canada
Note: The small numbers of sentinel physicians reporting at the local level make the ILI rates unstable. Please interpret these data correspondingly.

FURTHER INFORMATION

1. Ontario Ministry of Health and Long-Term Care
   Previous issues of the *Ontario Influenza Bulletin* can be accessed at:
   http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_08/flubul_mn.html

2. Public Health Agency of Canada
   Issues of FluWatch can be accessed at:
   www.phac-aspc.gc.ca/fluwatch/

3. United States Centers for Disease Control and Prevention
   http://www.cdc.gov/flu/weekly/fluactivity.htm

4. European Influenza Surveillance Scheme
   http://www.eiss.org/cgi-files/bulletin_v2.cgi

INFORMATION ABOUT H1N1 INFLUENZA (HUMAN SWINE INFLUENZA)

1. CDC (Human swine flu investigation)
   http://www.cdc.gov/swineflu/investigation.htm

2. PHAC (Human swine flu investigation)
   http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php

3. WHO Swine Flu general info
   http://www.who.int/csr/disease/swineflu/en/index.html

4. Ontario Ministry of Health (Important Health Notices)
   http://www.health.gov.on.ca/english/providers/program/emu/ihn.html

INFORMATION ABOUT AVIAN INFLUENZA

For latest information on the status of avian influenza worldwide please use the following link:
Public Health Agency of Canada
http://www.phac-aspc.gc.ca/h5n1/index.html

APPENDIX - I

Definitions for influenza activity levels:

No Data: No activity report corresponding to the surveillance week was received at the Ministry of Health and Long-Term Care Call Centre by the Tuesday (at 4 p.m.) following the end of the surveillance period.

No Activity: **No laboratory-confirmed* influenza and NO outbreaks detected** within the health unit/ influenza surveillance area, within the prior week, although sporadically occurring ILI may or may not be present.†

Sporadic: Sporadically (infrequently) occurring **ILI and at least one lab-confirmed influenza* case with NO outbreaks** detected within the health unit area.†

Localized: sporadically occurring **ILI and lab-confirmed influenza* together with outbreaks of ILI** in schools and work sites, or laboratory-confirmed influenza in residential institutions occurring in < 50% of the health unit . Outbreaks affect a single and/or adjacent geographic area within the health unit jurisdiction, e.g. outbreaks in a nursing home and a school in close proximity to each other.†

Widespread: sporadically occurring **ILI and lab-confirmed influenza* together with outbreaks of ILI** in schools and work sites, or laboratory-confirmed influenza in residential institutions occurring in > 50% of the health unit. Outbreaks affect multiple and non-adjacent geographic areas within the health unit jurisdiction, such as two or more regions of the health unit, two or more municipalities, two or more electoral wards, etc.†

* Confirmation of influenza within the surveillance region at any time within the prior week
† Sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

Influenza-Like Illness (ILI) Definitions:

A) ILI in the general population:

Acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

B) ILI/Influenza outbreaks:

Schools and work sites: greater than 10% absenteeism on any day, most likely due to ILI.

Residential institutions: two or more cases of ILI within a seven-day period, **including at least one laboratory confirmed case**.

Influenza Surveillance Weeks 2008-2009 and date of submission of Appendix C

WEEKS	START	END	Appendix C Submission to MOHLTC
WK24	14-Jun-09	20-Jun-09	23-Jun-09
WK25	21-Jun-09	27-Jun-09	30-Jun-09
WK26	28-Jun-09	4-Jul-09	7-Jul-09
WK27	5-Jul-09	11-Jul-09	14-Jul-09
WK28	12-Jul-09	18-Jul-09	21-Jul-09
WK29	19-Jul-09	25-Jul-09	28-Jul-09
WK30	26-Jul-09	1-Aug-09	4-Aug-09
WK31	2-Aug-09	8-Aug-09	11-Aug-09
WK32	9-Aug-09	15-Aug-09	18-Aug-09
WK33	16-Aug-09	22-Aug-09	25-Aug-09
WK34	23-Aug-09	29-Aug-09	1-Sep-09
WK35	30-Aug-09	5-Sep-09	8-Sep-09